

CLAIMS

1. A bit assembly for a drilling apparatus working by impact and rotation or merely by rotation, and comprising a pilot bit (1) drilling the hole centre and in connection with the pilot bit a ring bit is arranged to drill the outer circle of the hole and, further, between pilot bit (1) and ring bit (2) surfaces are arranged to transmit impacts and/or rotary motion from the pilot bit to the ring bit, and the bit assembly also including an arrangement for pulling protecting tube (10) into the hole on drilling, **characterized** in that the bit assembly between pilot bit (1) and ring bit (2) an arrangement blocking rotation and axial motion is jointly fitted in the rear edge of the ring bit shirt portion (5) so that the said arrangement is located on a diameter portion greater than diameter (Ds) of the groove-free inner surface of the ring bit, to which shirt portion (5) locking nose (7) of pilot bit (1) can be fitted, the shirt portion having a counter-groove shape (3, 4, 15) for nose (7) reaching through shirt (5) wall, which groove shape comprises surfaces that with one of their portion (4) can transmit rotary motion force to ring bit (2) and with their adjacent part (3) force to pull the ring bit off the hole.
2. A bit assembly according to claim 1, **characterized** in that pilot bit (1) comprises on portion (14) a diameter change, which takes place behind ring bit 2 viewed from the drilling direction, and the front edge of said portion comprises shape (7), which is fitted to work co-operatively with surfaces (3, 4) on shirt portion (5) of ring bit (2).
3. A bit assembly according to claim 1, **characterized** in that the shape shirt portion (5) of ring bit (2) comprises a pitch angle shaped portion (6) and a portion (3, 4) that forms a closing groove for connecting pilot bit (1) to ring bit (2).
4. A bit assembly according to claim 1, **characterized** in that the rear edge of ring bit (2) shirt (5) comprises at least a pitch angle shaped portion (6) and a possible one portion or several portions (15) with no pitch angle shape and that said portions are arranged as the one and only surface to take percussions from pilot bit (1).
5. A bit assembly according to claim 1, **characterized** in that in the ring bit (2) shirt (5) more pitch angle shaped portions (6) and more grooves (3);(4) are arranged.